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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,730	08/28/2003	Junji Ando	242169US3	5708

22850 7590 02/11/2005

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

RODRIGUEZ, SAUL

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/649,730

Applicant(s)

ANDO ET AL.

Examiner

Saúl J. Rodríguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This communication is responsive to the amendment filed November 22, 2004.

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

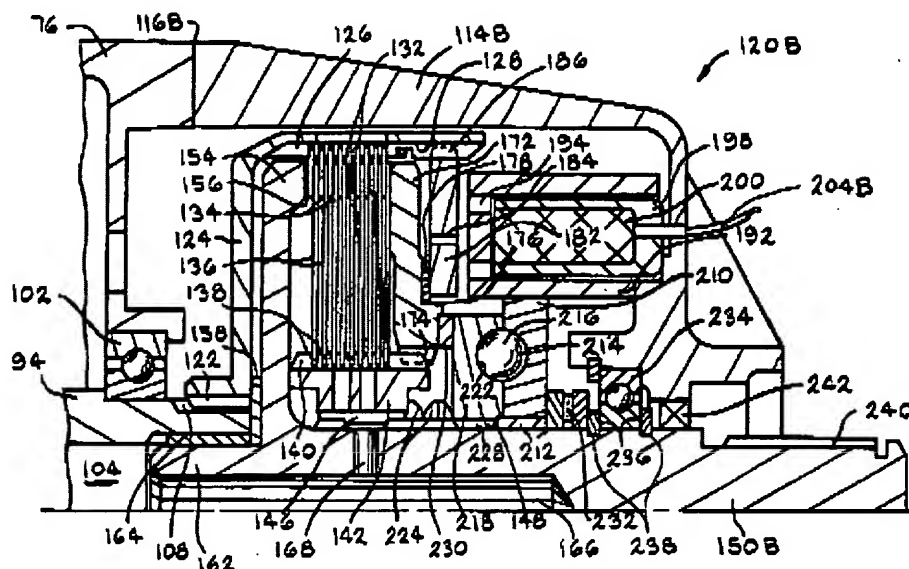
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, and 10 rejected under 35 U.S.C. 102(b) as being anticipated by Isley, Jr. ('770).

Isley discloses a drive power transmission device (Fig. 3) comprising first and second cylindrical rotary members (124, 142), a main clutch mechanism (120B), plural outer plates (132), plural inner plates (138), an electromagnetic pilot clutch (200), a pilot outer plate (182), a pilot inner plate (192), an electromagnet (200), a cam mechanism (216), a weaving electromagnetic path (Col. 6, lines 21-38), and arc slits (184, 194).



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

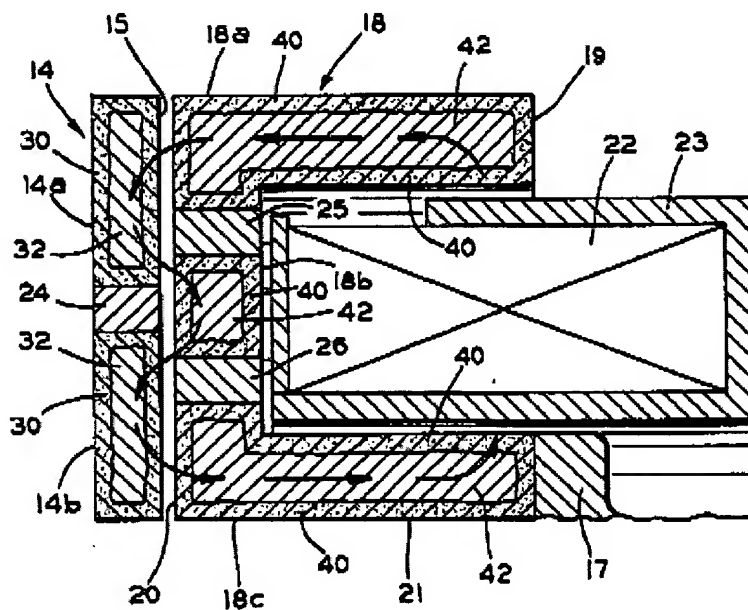
Claims 3-5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
Jr. ('770) in view of Drawl et al. ('421).

Drawl, on the other hand, teaches a conventional DLC film for extending the life of a surface exposed to frictional contact.

Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to treat the friction surfaces of Isley, Jr. with a DLC surface in view of Drawl to toughen the coupling.

Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isley, Jr. ('770) in view of Booth et al. ('421).

Isley does not show isolation members. Booth et al. on the other hand discloses conventional isolation members (24, 25, 26) for an electromagnetic clutch. Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide isolation members in the transmission device of Isley in view of Booth to increase the magnitude of the attraction between the electromagnetic elements.



Claims 8-9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isley, Jr. ('770) and Drawl et al. ('421) in further view of Booth et al. ('421).

Isley in view of Drawl et al. does not show isolation members. Booth et al. on the other hand discloses conventional isolation members (24, 25, 26) for an

electromagnetic clutch. Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide isolation members in the transmission device of Isley and Drawl et al. in further view of Booth to increase the magnitude of the attraction between the electromagnetic elements.

### ***Response to Arguments***

Applicant's arguments filed November 22, 2004 have been fully considered but they are not persuasive.

Regarding applicant's argument that the prior art does not show plural contact surfaces, it is noted that armature 182 of the prior art has a first friction surface corresponding to rotor 192 and a second friction surface corresponding to washer 176. Also, rotor 192 has a friction surface corresponding to armature 182. Therefore, the clutch of Isley, Jr comprises at least three friction surfaces.

Regarding applicant's argument that the prior art does not teach frictional contact between the armature and the rotor, the examiner respectfully disagrees. Noting that the armature of Isley, Jr. is merely splined about its outer periphery and not bound on a side corresponding to the rotor 192, a person of skill in the art would have understood that excitation of the clutch would induce an pulling force that would frictionally engage the rotor and the armature. Even Booth et al. discloses this conventional model.

Concerning claims 3-5 and 7, Drawl et al. discloses a conventional DLC film comprising a binding agent. Given that the particles of the prior art define a film, have

carbon, and are diamond-like, it is believed that the combination of Isley, Jr. and Drawl et al. anticipated the claimed subject matter.

Then, for the aforementioned reasons, the rejections are deemed proper.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saúl J. Rodríguez whose telephone number is (703) 308-7575. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (703) 308-308-0830. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Saúl J. Rodríguez  
Examiner  
Art Unit 3681

  
SJR